

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-14 (Canceled).

Claim 15 (Currently Amended): ~~[[A]]~~ The gear ~~tooth~~ pump according to claim ~~[[14]]~~ 19, wherein the second transition point defines a bottom of a notch made in the tooth profile.

Claim 16 (Currently Amended): ~~[[A]]~~ The gear ~~tooth~~ pump according to claim ~~[[14]]~~ 19, wherein the convex sector following the first transition point has a spherical involute profile.

Claim 17 (Currently Amended): ~~[[A]]~~ The gear ~~tooth~~ pump according to claim ~~[[14]]~~ 19, wherein the convex sector following the second transition point has a spherical involute profile.

Claim 18 (Currently Amended): ~~[[A]]~~ The gear ~~tooth~~ pump according to claim ~~[[14]]~~ 19, wherein the top of the tooth includes a rounded end sector joined to each of the convex sectors following the second transition point by a transition sector.

Claim 19 (Currently Amended): An external gear pump, comprising:
at least one pair of mutually meshed toothed gears including a driving gear and a driven gear, ~~wherein~~ each tooth of the gears ~~[[is]]~~ being comprised of a root including two concave root sectors, with each of the concave root sectors being joined at an origin to a concave root sector of a neighboring tooth~~[[;]]~~, and a top including a first side and a second

side, with each of the sides of the top joined to a respective one of the concave root sectors by a first transition point,

wherein each of the sides of the top includes two convex sectors joined by a second transition point defining a discontinuity in curvature of a profile of the tooth, profile

wherein the teeth in mesh have at all times at least one primary bearing point by which the driving gear moves the driven gear, and at least one secondary contact point, and

wherein the first transition point of one of the teeth in mesh is successively the primary bearing point and the secondary contact point in the course of meshing.

Claim 20 (Currently Amended): [[A]] The gear pump according to claim 19,
wherein two of the toothed gears are identical.

Claim 21 (Currently Amended): [[A]] The gear pump according to claim 19,
wherein the first transition point on one side of one tooth rolls over a convex sector on one side of a tooth of an opposite meshed gear.

Claim 22 (Currently Amended): [[A]] The gear pump according to claim 19,
wherein a shape of an end sector of the teeth matches a shape of a concave sector defined by juxtaposition of two roots of neighboring teeth.

Claim 23 (Currently Amended): [[A]] The gear pump according to claim 19,
wherein an end sector of one tooth rolls between two teeth of an opposite meshed gear, while maintaining contact therewith until the one tooth slips away from the two teeth of the opposite meshed gear.

Claims 24 and 25 (Canceled).

Claim 26 (Currently Amended): [[A]] The gear pump according to claim 19, wherein the teeth of two meshed gears are in contact over more than one pitch.

Claim 27 (Canceled).

Claim 28 (Currently Amended): [[A]] The gear pump according to claim 19, wherein at least one tooth of the mutually meshed gears is symmetric.

Claim 29 (Currently Amended): [[A]] The gear pump according to claim 19, wherein each tooth of the mutually meshed gears is symmetric.

Claim 30 (New): The gear pump according to claim 19, wherein, when the one of the teeth in mesh is successively the secondary contact point, the primary contact point of the teeth in mesh is on a next tooth downstream in a direction of rotation of the pair of gears, and after the primary contact point is on the next tooth, the primary contact point is transferred back to the one of the teeth in mesh that is upstream from the next tooth before the next tooth is out of mesh.